Claims

1. Process for numbering objects, such as securities, banknotes, checks and cards and other similar objects arranged in rows and columns on a substrate and receiving a number with p digits, composed of digits 1 to s, s+1 to r and r+1 to p, said process being characterised in that
for a substrate carrying k columns and n rows, whereby k*n is smaller than 10^S, s being smaller than p, the start value of digit s+1 to digit r of the serial number of each object is calculated for each first substrate of a run of 10^S successive substrates with the formula
$Z = (j-1) + (i-1)*n + (m-1)*(k*n)$,
whereby j identifies the line of the object, i identifies the column of the object and m identifies the run of 10^S successive substrates.

2. A process as claimed in claim 1, whereby the numbering is carried out downwards and the formula is $Z = D/10^S - ((j-1) + (i-1)*n + (m-1)*k*n)$, whereby D is the serial number from which the downward numbering starts.

3. A method for processing a substrate in the form of sheets or web, wherein each sheet or each repetitive length of web contains objects arranged in k columns and n rows, said objects being numbered with a number containing p digits, comprising digits 1 to s, s+1 to r and r+1 to p, wherein piles of q sheets or of q repeat length of web transformed into individual sheets are formed and processed into packs of individual objects by cutting said rows and said columns, whereby q is dividable with an even result by 10^S, the packs resulting from the sequential cutting of successive piles forms a continuous flow of objects sequentially numbered by the process of one of claims 1 or 2.

4. A numbering box for typographic numbering in sheet or web fed printing machines, said box numbering with p digits, comprising digits 1 to s, s+1 to r and r+1 to p, k*n items on said sheets or web for allowing a sequential collecting of said items in the finishing and collating process of layers of q sheets or of web cut into layers of q sheets, said box being characterised by

a purely sequential actuation for digits 1 to s, where 10^S is smaller or equal to q, and
a purely individually settable actuation for digits s+1 to r, where the maximum number printable by digits 1 to s and s+1 to r is smaller or equal to k*n*q, and
a sequential actuation for digits r+1 to p.

5. A box as claimed in claim 4, characterised in that said p digits are printed with corresponding numbering wheels (1,2,3,4,5,6,7).

6. A box as claimed in claims 4 or 5, characterised in that the purely sequential actuation for digits 1 to s is made by mechanical means.

7. A box as claimed in one of claims 4 to 6, characterised in that said purely individually settable actuation for digits s+1 to r is made by independent drives (15,16).

8. A box as claimed in one of claims 4 to 7, characterised in that said sequential actuation for digits r+1 to p is electromechanically initiated.

9. A numbering machine for numbering objects such as banknotes, securities, passports and other similar objects placed on a substrate, said machine being characterised by at least one numbering box according to one of claims 4 to 8.